#### COMMONWEALTH OF KENTUCKY

#### BEFORE THE PUBLIC SERVICE COMMISSION

In the	Matter	of
--------	--------	----

APPLICATION OF GOSHEN UTILITIES, INC.	)	
FOR AN ADJUSTMENT OF RATES PURSUANT	)	
TO THE ALTERNATIVE RATE FILING	)	CASE NO. 98-377
PROCEDURE FOR SMALL LITHITIES	ĺ	

## ORDER

On July 15, 1998, Goshen Utilities, Inc., Sewer Division (Goshen), applied for an adjustment of its rates for sewage treatment service pursuant to 807 KAR 5:076. Commission Staff, having performed a limited financial review of Goshen's operations, has prepared the attached Staff Report containing Staff's findings and recommendations regarding the proposed rates. All parties should review the report carefully and provide any written comments or requests for a hearing or informal conference no later than 14 days from the date of this Order.

IT IS THEREFORE ORDERED that all parties shall have no more than 14 days from the date of this Order to provide written comments regarding the attached Staff Report or requests for a hearing or informal conference. If no request for a hearing or informal conference is received, this case shall be submitted to the Commission for decision.

Done at Frankfort, Kentucky, this 11<sup>th</sup> day of February, 1999.

ATTEST:	By the Commission
Executive Director	

### COMMONWEALTH OF KENTUCKY

# BEFORE THE PUBLIC SERVICE COMMISSION

in the matter of.	In	the	Matter	of:
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THE ALTERNATIVE RATES	)	CASE NO. 98-377
FILING OF GOSHEN UTILITIES, INC.	)	

# **STAFF REPORT**

Prepared By: John D. Williams Public Utility Financial Analyst, Senior Water and Sewer Revenue Requirements Branch Division of Financial Analysis

Prepared By: D. Brent Kirtley Public Utility Rate Analyst, Senior Communications, Water and Sewer Rate Design Branch Division of Financial Analysis

### **STAFF REPORT**

### <u>ON</u>

# **GOSHEN UTILITIES, INC., SEWER**

### CASE NO. 98-377

On July 15, 1998, Goshen Utilities, Inc., Sewer Division (Goshen) filed an application seeking to increase its rates pursuant to 807 KAR 5:076. The application requested approval to increase tariffed sewer rates by 26.4 percent, an increase in annual revenue of \$70,035. Goshen requested assistance from Commission Staff (Staff) in the preparation of its Alternative Rate Filing Application as allowed pursuant to 807 KAR 5:076, Section 2. To assist in the preparation of this application, Staff performed a limited financial review of Goshen's test year operations; the calendar year ended December 31, 1996.

The scope of the review was limited to obtaining information as to whether the test period operating revenues and expenses were representative of normal operations. Insignificant or immaterial discrepancies were not pursued and are not addressed herein.

John Williams of the Commission's Water and Sewer Revenue Requirements Branch performed the limited review on November 13, 1997. Mr. Williams is responsible for the preparation of this Staff Report, except for the determination of normalized operating revenue and Attachments D and E which were prepared by Brent Kirtley of the Commission's Communications, Water and Sewer Rate Design Branch.

A comparison of Goshen's actual and pro forma operations is shown in Attachment A. Based on Staff's recommendations, Goshen's operating statement would appear as set forth in Attachment B. Attachment C compares Goshen's and Staff's revenue requirement calculations. Goshen's application reflected a pro forma revenue requirement of \$336,462, or an increase in revenues of \$70,035. Staff recommends a revenue requirement of \$316,197 or an increase in revenues of \$49,770.

Staff anticipates that the rates recommended herein will generate, at a minimum, sufficient revenues to allow the utility to meet all its cash operating expenses and annual debt service requirements for a period of three years. Should the revenues generated by these rates become inadequate to meet these requirements at any time during the three-year period, the utility should take whatever steps are necessary to remedy the situation. At the end of the three-year period, Staff will perform a limited review of the utility's operations to ensure that the rates remain adequate. As part of that review the utility may be required to file additional information.

Staff performed a cost of service study on Goshen in order to design rates that properly allocate the utility's costs among its customers in a fair, just, and reasonable manner. The study analyzed the utility's costs of providing sewer service, then allocated those costs among three types of classifications: commodity, demand, and customer. Commodity costs are those directly associated with treatment of the waste. Demand costs are those associated with providing the facilities to meet the demands placed on the system. Customer costs are those associated with serving the customers without regard for varying usage.

Currently, Goshen's rates are based on a five-step declining-block rate design applied to customers monthly consumption of water. However, per EPA suggested guidelines, Staff recommends a monthly customer charge in conjunction with a flat-rate usage charge based on the customer's monthly water consumption.

The monthly customer charge includes only those costs associated with providing sewer service to a customer, irrespective of the customer's usage level. For example, billing and postage are two of the many costs attributable to customers incurred by the utility each month even when a customer does not use the system. The monthly customer charge does not include any costs for treatment of waste. All treatment costs are recovered through the flat-rate usage charge for each thousand gallons of water used. This type of rate design better reflects the actual cost of providing service, diminishes cross subsidization among different levels of sewer users, and allows fairer rates for individual customers. The complete cost of service study is included as Attachment D.

Staff's recommended rate in Attachment E will generate the required revenue from rates of \$316,197.

Signatures

Prepared By: John D. Williams Public Utility Financial Analyst, Senior Water and Sewer Revenue Requirements Branch Division of Financial Analysis

Prepared By: D. Brent Kirtley
Public Utility Rate
Analyst, Senior
Communications, Water and
Sewer Rate Design Branch
Division of Financial Analysis

ATTA STAFF REPO	ACHMENT A	08-377		
GOSHEN'S REQ				
GOSHENSIKEQ	Actual	LIVATIONS	T	Requested
	Operations	Adjustments	Ref.	Operations
On a notice a Development	Operations	Adjustments	Kei.	Operations
Operating Revenues:  Measured - General Customers	#000 000	<b>#2.000</b>	_	<b>#000</b>
	\$263,398	\$3,029	Α	\$266,427
Forfeited Discounts	7,283	0		7,283
Total Operating Revenues	\$270,681	\$3,029	-	\$273,710
Operating Expenses:				
Operation & Maintenance:				
Operation Labor	\$50,013	(\$7,072)	В	\$42,941
Fuel & Power	32,238	515	С	32,753
Chemicals	16,045	0		16,045
Misc. Supplies & Exp.	1,872	0		1,872
Routine Maintenance Fee	0	14,400	D	14,400
Maint Structures	1,393	0		1,393
Maint Collection Sys.	2,025	0		2,025
Maint Pumping Sys.	3,019	(1,165)	E	1,854
Maint Treatment & Disp.	21,634	(16,256)	F	5,378
Uncollectibles	216	0		216
Misc. Customer Accts.	1,365	0		1,365
Admin. & General Salaries	57,656	7,164	G	64,820
Office Supplies	7,782	0		7,782
Outside Services	38,037	(13,924)	Н	24,113
Insurance	10,832	(2,727)	1	8,105
Employee Pensions & Benefits	9,831	(378)	J	9,453
Reg. Commission Exp.	1,299	O O		1,299
Transportation	7,906	0		7,906
Misc. Gen Exp.	94	O		94
Rents	1,977	0		1,977
Maint General Plant	2,144	0		2,144
Operations & Maint. Exp.	\$267,378	(\$19,443)		\$247,935
Depreciation	58,626	(17,592)	K,N	41,034
Amortization	51	1,915	L,N	1,966
Taxes Other Than Income Tax Exp.	12,255	271	M	12,526
Total Operating Expenses	\$338,310	(\$34,849)		\$303,461
Net Operating Income	(\$67,629)	\$37,878		(\$29,751)
Other Income (Expense):	(ψοι, σεσ)	Ψο, ,ο, ο		(Ψ20,701)
Income Non-utility Operations	(192)	0		(192)
Interest & Dividend Income	14,688	0		14,688
Misc. Nonoperating Income	3,325	0	-	3,325
Interest Expense	(5,153)	(2,240)	0	(7,393)
Net Income Available for Operations	(\$54,961)	\$35,638		(\$19,323)
THE INCOME AVAILABLE TO OPERATIONS	(\$34,301)	ψ33,036		(Φ13,323)

					Page 1 of 8
		TTACHMENT E			
		PORT CASE N			
	STAFF'S REC				7
		Actual	Pro Forma	Note	Recommended
		Operations	Adjustments	Ref.	Operations
Operating Re					
	d - General Customers	\$263,398	\$3,029	Α	\$266,427
	Discounts	7,283	0		7,283
	Operating Revenues	\$270,681	\$3,029		\$273,710
Operating Ex					
	n & Maintenance:				
	ation Labor	\$50,013	(\$11,122)	В	\$38,891
	& Power	32,238	515	С	32,753
Chem		16,045	0		16,045
	Supplies & Exp.	1,872	0		1,872
	ne Maintenance Fee	0	14,400	D	14,400
	Structures	1,393	0		1,393
	Collection Sys.	2,025	0		2,025
	Pumping Sys.	3,019	(1,165)	E	1,854
	Treatment & Disp.	21,634	(16,256)	F	5,378
	lectibles	216	0		216
	Customer Accts.	1,365	0		1,365
	n. & General Salaries	57,656	(4,478)	G	53,178
	Supplies	7,782	0		7,782
	de Services	38,037	(13,924)	H	24,113
Insura		10,832	(3,093)	ı	7,739
	oyee Pensions & Benefits	9,831	(1,162)	J	8,669
	Commission Exp.	1,299	0		1,299
	portation	7,906	0		7,906
	Gen Exp.	94	0		94
Rents		1,977	0		1,977
	General Plant	2,144	0		2,144
	perations & Maint. Exp.	\$267,378	(\$36,285)		\$231,093
Deprecia		58,626	(17,592)	K,N	41,034
Amortizat		51	2,595	L,N	2,646
	ner Than Income Tax Exp.	12,255	(930)	M	11,325
	Operating Expenses	\$338,310	(\$52,212)		\$286,098
Net Operating		(\$67,629)	\$55,241		(\$12,388
Other Income					
	on-utility Operations	(192)	0		(192
	Dividend Income	14,688	0		14,688
	noperating Income	3,325	0		3,325
Interest E		(5,153)	(2,240)	0	(7,393
Net Income A	vailable for Operations	(\$54,961)	\$53,001		(\$1,960

# ATTACHMENT B STAFF REPORT CASE NO. 98-377 STATEMENT OF ADJUSTED OPERATIONS

- A. Measured General Revenue. Goshen reported sewer revenues of \$263,398 in its 1996 annual report to the Commission. At the request of Staff, Goshen prepared a billing analysis using billing and usage information for the 1,206 customers served by the utility on December 31, 1996. The information showed annual billings of \$266,427. Staff reviewed the analysis, verified it to within 0.0015 percent, and therefore accepted Goshen's amount of annual billings. The difference between Goshen's annual report and billing analysis resulted in a proforma increase to revenue of \$3,029.
- B. Operation Labor. Goshen Utilities, Inc. allocates its payroll between its Sewer and Water Divisions using allocation factors developed in a 1988 time study. Since 1988, the utility has conducted other time studies, which have produced similar results. Therefore, Staff applied Goshen's allocation factor of 30 percent for the Sewer Division to regular and overtime hours worked by the foreman, laborers and maintenance person during the test period. These hours were then multiplied by the 1998 pay rates.

Test period wages (before allocation) of \$25,270 for a licensed treatment plant operator have been eliminated because the employee resigned and his duties are now performed under contract by Eubank, Hall & Associates, as more fully described in Pro-Forma Adjustment D, below. Staff also eliminated from test year operations the Sewer Division's allocation of 30 percent of the wages for the

- Water Division's plant operator. The net result of these of these calculations is a pro-forma reduction to operation labor of (\$11,122).
- C. <u>Fuel & Power.</u> The Utility allocates common office expenses, such as electricity, 50 percent to the Sewer Division and 50 percent to the Water Division since the expenses are fixed in nature. In the test period, the Water Division paid 100 percent of the office electric expense. To reflect the proper allocation, Staff has increased the Sewer Division's electricity expense by 50 percent of the total \$1,030 in office electricity expense, or \$515.
- D. Routine Maintenance Fee. At the end of 1996 the Sewer Division's licensed plant operator resigned. Goshen entered into a routine maintenance contract with Eubank, Hall & Associates to provide this service for \$1,200 per month. This expense appears to be reasonable, thus Staff has included the annualized pro-forma adjustment of \$14,400 for Routine Maintenance Fee.
- E. <u>Maintenance Pumping System</u>. This pro-forma adjustment removes the \$1,165 cost for the installation of an electric service pole at the Harmony Landing Road lift station from test-period operating expenses. Capital expenditures benefit more than one period and therefore should be depreciated rather than expensed. The associated depreciation expense is included in Pro-Forma Adjustment K.
- F. <u>Maintenance Treatment & Disposal Plant</u>. This pro-forma adjustment removes from test-period operating expenses \$16,256 in capital expenditures at the Cardinal Harbour and Trails End treatment plants. Since capital expenditures benefit more than one period they should be depreciated rather than expensed. The associated depreciation expense is included in Pro-Forma Adjustment K.

G. Administrative & General Salaries. Administrative and general salaries were allocated between the Sewer and Water Divisions using factors developed in the 1988 time study. Goshen's application proposed that the manager had increased the time he spends on the Sewer division to 50 percent for consistency with other administrative and general staff. However, the Commission previously accepted Goshen's allocation factors from the 1988 time study in a Staff Report<sup>1</sup> for the Sewer Division and a Settlement Agreement for the Water Division. <sup>2</sup> An increase to the cost allocation for the Sewer Division without a proportionate, simultaneous decrease for the Water Division would result in double-recovery of that fractional portion of the manager's salary.

Therefore, Staff applied Goshen's allocation factor of 30 percent for the Sewer Division to the manager's 1998 weekly salary rate for administrative and general salaries. Staff used Goshen's 50 percent allocation factor, combined with the regular and overtime hours worked by office employees, as well as the 1998 pay rates, to determine a pro-forma adjustment. Therefore, this expense has been decreased by (\$4,478).

H. <u>Outside Services.</u> Staff made a pro-forma adjustment to this account to include the increase in sludge-hauling fees from an average of \$387.95 to \$396.40 per 5,000 - gallon load. Based on 38 loads per year this results in a \$321 increase.

<sup>&</sup>lt;sup>1</sup> Case No. 89-081, Adjustment of Rates of the Goshen Utilities, Inc., Sewer Division, Staff Report Dated October, 24,1989.

<sup>&</sup>lt;sup>2</sup> Case No. 96-140, Application of Goshen Utilities, Inc. for (i) a Certificate of Public Convenience and Necessity, (ii) Authorization for Financing of the Construction Project, and (iii) an Adjustment of the Rates for Water Service in Oldham County, Final Order Dated July 19,1996.

Additionally, during 1996 Goshen paid Al Schneider, a stockholder, a consulting fee of \$20,000 and allocated 50 percent to the Sewer Division. In Case No. 89-081,<sup>3</sup> the Commission determined that the consulting services of Mr. Stone, a former Goshen stockholder, were not needed because the current manager had the knowledge and technical experience to operate Goshen. To be consistent with that Commission decision, Mr. Schneider's consulting fee has been removed from test-period operating expenses. Furthermore, non-recurring charges of \$1,275 paid to Headden Septic Service to pump the lift station and \$2,970 to Beckmar Laboratory for MSD sludge analysis have been removed from proforma operating expenses. These expenditures are to be recovered through amortization expense due to their non-recurring nature. The associated amortization expense is included in Pro-Forma Adjustment L. The net pro-forma adjustment to Outside Services is a decrease of (\$13,924).

- Insurance. This pro-forma adjustment of (\$3,093) reflects Goshen's current insurance premiums for workers compensation, general property and liability insurance, based on the pro-forma payroll allocations and the 30 percent allocation factor used for the Sewer Division's general property and liability coverage.
- J. <u>Employee Pensions & Benefits.</u> Goshen provides family health insurance coverage to all its employees in lieu of higher wages. If an employee opts for single coverage or no health insurance coverage the wages are adjusted

<sup>&</sup>lt;sup>3</sup> Case No. 89-081, Adjustment of Rates of the Goshen Utilities, Inc., Sewer Division, Final Order Dated February 22, 1990.

accordingly. This pro-forma adjustment of (\$1,162) reflects allocating the 5 percent employer retirement contribution and the current employee insurance premiums to the Sewer Division using the payroll allocation factors previously set forth.

K. <u>Depreciation Expense.</u> The Sewer Division's test-period balance sheet lists Contributions In Aid of Construction (CIAC) of \$1,368,538, which is a form of cost free capital. Depreciation expense on utility plant funded by CIAC (36.281 percent of the total) has been removed in the amount of (\$22,481) to comply with past Commission ratemaking practices. Prior to computing the CIAC adjustment, depreciation expense on 1996 plant acquisitions was normalized to reflect a full year of expense on that utility plant placed in service during the test-year.

Depreciation expense on the capital expenditures, both removed from test-year operating expenses (Pro-Forma Adjustment F and E, above), and added for needed upgrades and improvements (Pro-Forma Adjustment N, below), was calculated based on the estimated useful lives of the various capital expenditures, resulting in \$4,889 of additional depreciation expense as shown below:

<u>ltem</u>	<u>Adj.</u>	Cost	<u>Life</u>	<u>Expense</u>
6 Techna valve	F	\$ 692	7 yr.	\$ 99
Labor to replace blower motor	F	\$ 315	5 yr.	\$ 45
Replace mechanical aerator	F	\$ 4,881	7 yr.	\$ 697
Fabricate 6 header and				
Diffuser drops	F	\$ 1,772	7 yr.	\$ 253
20 HP blower motor	F	\$ 797	7 yr.	\$ 114
Replacement parts for aerator	F	\$ 1,256	7 yr.	\$ 179

<u>ltem</u>	<u>Adj.</u>	<u>Cost</u>	<u>Life</u>	<u>Expense</u>
Clean site and install new				_
Comminutor	F	\$ 1,329	5 yr.	\$ 266
Expansion site labor	F	\$ 782	20 yr.	\$ 39
Install 3 HP Otterbine aerator				
In the lagoon	F	\$ 1,541	7 yr.	\$ 220
New blower motor in control				
Building	F	\$ 2,295	7 yr.	\$ 328
Lincoln 20 HP blower motor	F	\$ 596	7 yr.	\$ 85
Install 230 volt service & pole	Ε	\$ 1,165	20 yr.	\$ 58
30 HP blower & 40 HP starter	Ν	\$ 6,000	5 yr.	\$ 1,200
Sutorbilt 40 HP blower, stand			•	
And accessories	Ν	\$12,000	12.5 yr.	\$ 1,001
Install 8 air piping from			•	
Building to tanks	Ν	\$ 1,960	20 yr.	\$ 98
Fabricate & install 6 header on		,	•	·
Bridge in tank	Ν	\$ 4,130	20 yr.	\$ 207
Capital Expenditure Adjustment		. ,	,	\$ 4,889

The total of the above items results in a net pro-forma adjustment to depreciation expense of (\$17,592).

- L. Amortization Expense. This \$2,595 adjustment reflects amortizing the KPDES permits and applications renewed every five years, as well as, the non-recurring expenditures that were removed from test-year operating expenses in Pro-Forma Adjustments H and N. The non-recurring expenditures are amortized over a three-year period. Generally, the Commission recognizes a three-year period as the average between rate case filings. This is deemed reasonable since Goshen's last two rate cases have spanned four years each. Although these are not rate case expenditures, the items are repairs and maintenance, which although non-recurring due to lack of predictability, may arise at any time.
- M. <u>Taxes Other than Income Taxes.</u> This pro-forma adjustment reflects the (\$930) projected decrease in FICA and OASDI taxes due to the reduction in pro-forma payroll.

- N. Trails End WasteWater Treatment Plant Project. These pro-forma adjustments are for the diffused air installation project at Trails End WasteWater Treatment Plant. This project, to be completed in 1998, will improve the utility plant and is appropriate for and consistent with the utility's service to the public. The project includes, in part, financing for and costs of removal of a mechanical bridge, new blowers, and air piping installation. The \$1,500 for removal of the mechanical bridge is considered an amortizable, non-recurring cost and has been included in Pro-Forma Adjustment L. The \$24,600 for new blowers, air-piping, etc. is deemed a depreciable cost and has been included in Pro-Forma Adjustment K.
- O. <u>Financing and Interest Expense.</u> The Utility applied for financing of the Trails End WasteWater Plant Treatment costs with a local financial institution. The proposed terms are a one year renewable maturity, with interest at one percent over the prime rate (8.5% at March 6, 1998) and monthly payments based on 10 year amortization. Staff considers this as long-term in nature with the proceeds of the loan being used for reasonable upgrades and improvements of utility plant. The pro-forma adjustment increasing interest expense by \$2,240 represents the average interest expense for the next three years at 9.5 percent per annum.

# ATTACHMENT C STAFF REPORT, CASE NO. 98-377 COMPARISON OF REQUESTED AND RECOMMENDED REVENUE REQUIREMENTS

	Goshen	Staff
	Requested	Recommended
Pro Forma Operating Expenses	\$303,461	\$286,098
Divided by: Requested Operating Ratio	88%	88%
Subtotal	\$344,842	\$325,111
Less: Pro Forma Operating Expenses	303,461	286,098
Margin After Income Taxes	\$41,381	\$39,013
Multiplied by: Income Tax Gross-up Factor	1.22549	1.22549
Margin Before Income Taxes	\$50,712	\$47,810
Add: Pro Forma Operating Expenses	303,461	286,098
Interest Expense	7,393	7,393
Total Revenue Requirement	\$361,566	\$341,301
Less: Non-Operating Income	17,821	17,821
Revenue Requirement from Operations	\$343,745	\$323,480
Less: Forfeited Discounts	7,283	7,283
Revenue Requirement from Rates	\$336,462	\$316,197
Less: Normalized Revenues	266,427	266,427
Requested Operating Revenue Increase	\$70,035	\$49,770

# ATTACHMENT D-1 STAFF REPORT CASE NO. 98-377 COST OF SERVICE STUDY ALLOCATION OF PLANT VALUE

	Total	Commodity	Demand	Customer
Intangible Plant:				
Miscellaneous Intangible Plant	2,094		2,094	
Land and Structures:				
Land and Land Rights	30,035		30,035	
Structures and Improvement	2,531		2,531	
Collection Plant:				
Collection SewersGravity	1,199,809		1,199,809	
Flow Measuring Devices	5,260		5,260	
Pumping Plant:				
Pumping EquipmentElectric	73,731		73,731	
Treatment and Disposal Plant:				
Treatment and Disposal Equipment	128,874		128,874	
Plant Sewers	14,817		14,817	
Other T&D Plant Equipment	24,388		24,388	
Office Furniture and Equipment	15,228			15,228
Subtotal	1,496,767		1,481,539	15,228
Allocation Percentages	100.00%		98.98%	1.02%
General Plant:				
Transportation Equipment	46,264		45,793	471
Tools, Shop, & Garage Equipment	7,612		7,535	77
Communication Equipment	4,608		4,561	47
Other Tangible Equipment	6,555		6,488	67
Total	1,561,806		1,545,916	15,890
SOURCE: 1996 Annual Report and pro	-forma adiustn	nents		

### ATTACHMENT D-2

### STAFF REPORT CASE NO. 98-377

#### COST OF SERVICE STUDY

### ALLOCATION OF OPERATION AND MAINTENANCE EXPENSES

Pensions & Benefits		Total	Commodity	Demand	Customer
Pensions & Benefits	Operation Labor:		j		
Insurance	Salaries	38,891		25,294	13,597
Payroll Taxes	Pensions & Benefits	3,662		2,382	1,280
Administrative & Managerial: Salaries	Insurance			1,994	1,072
Administrative & Managerial: Salaries S	Payroll Taxes	3,220		2,094	1,126
Pensions & Benefits	Administrative & Managerial:				
Insurance	Salaries	53,178		24,530	28,649
Payroll Taxes	Pensions & Benefits	5,007		2,310	2,697
Maintenance:	Insurance	216		100	116
Structures	Payroll Taxes	4,402		2,031	2,372
Collection System	Maintenance:				
Purping System	Structures	1,393			1,393
Purping System	Collection System	2,025		2,025	
General Plant		1,854		1,854	
Uncollectibles	Treatment and Disposal	5,378	5,378		
Miscellaneous Customer Accounts         1,365         1,365           Vehicle Insurance         4,457         2,229         2,229           Fuel & Power         32,753         32,753         32,253           Chemicals         16,045         16,045         16,045           Outside Services:         5         5         5           Sludge Hauling         15,063         15,063         9,050           Subtotal         203,385         69,239         78,035         56,111           Less Commodity         69,239         78,035         \$56,111           Allocation Percentages         100,00%         58,17%         41,83%           Office Supplies         7,782         4,527         3,255           Rent         1,977         1,150         827           Transportation         7,7906         4,599         3,307           Regulatory Cormission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872	General Plant	2,144		2,144	
Vehicle Insurance         4,457         2,229         2,229           Fuel & Power         32,753         32,753         Chemicals           Outside Services:         16,045         16,045         16,045           Other         9,050         9,050         Subtotal         203,385         69,239         78,035         56,111           Less Commodity         69,239         78,035         \$56,111         Less Commodity         69,239         78,035         \$56,111           Allocation Percentages         100,00%         58,176         41,83%         69,239         78,035         \$56,111           Allocation Percentages         100,00%         58,177         41,83%         69,211         41,83%         69,239         78,035         \$56,111         827         3,255         Rent         11,977         1,150         827         3,255         Rent         1,977         1,150         827         3,255         Rent         1,299         756         543         Routine System Maintenance         14,400         8,377         6,023         Routine System Maintenance         14,400         8,377         6,023         Property Taxes         3,703         2,154         1,549         Miscellaneous Supplies Expense         1,872         1,089	Uncollectibles	216			216
Vehicle Insurance         4,457         2,229         2,229           Fuel & Power         32,753         32,753         Chemicals           Outside Services:         16,045         16,045         16,045           Other         9,050         9,050         Subtotal         203,385         69,239         78,035         56,111           Less Commodity         69,239         78,035         \$56,111         Less Commodity         69,239         78,035         \$56,111           Allocation Percentages         100,00%         58,176         41,83%         69,239         78,035         \$56,111           Allocation Percentages         100,00%         58,177         41,83%         69,211         41,83%         69,239         78,035         \$56,111         827         3,255         Rent         11,977         1,150         827         3,255         Rent         1,977         1,150         827         3,255         Rent         1,299         756         543         Routine System Maintenance         14,400         8,377         6,023         Routine System Maintenance         14,400         8,377         6,023         Property Taxes         3,703         2,154         1,549         Miscellaneous Supplies Expense         1,872         1,089	Miscellaneous Customer Accounts	1,365			1,365
Chemicals         16,045         16,045           Outside Services:	Vehicle Insurance	4,457		2,229	2,229
Outside Services:         Sludge Hauling         15,063         15,063         9,050           Other         9,050         9,050         Subtotal         203,385         69,239         78,035         56,111           Less Commodity         69,239         1 </td <td>Fuel &amp; Power</td> <td>32,753</td> <td>32,753</td> <td></td> <td></td>	Fuel & Power	32,753	32,753		
Sludge Hauling	Chemicals	16,045			
Other         9,050         9,050           Subtotal         203,385         69,239         78,035         56,111           Less Commodity         69,239         78,035         \$56,111           Allocation Percentages         100.00%         58.17%         41.83%           Office Supplies         7,782         4,527         3,255           Rent         1,977         1,150         827           Transportation         7,906         4,599         3,307           Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         763           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less C	Outside Services:				
Other         9,050         9,050           Subtotal         203,385         69,239         78,035         56,111           Less Commodity         69,239         78,035         \$56,111           Allocation Percentages         100.00%         58.17%         41.83%           Office Supplies         7,782         4,527         3,255           Rent         1,977         1,150         827           Transportation         7,906         4,599         3,307           Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         763           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less C	Sludge Hauling	15,063	15,063		
Subtotal         203,385         69,239         78,035         56,111           Total         \$134,146         \$78,035         \$56,111           Allocation Percentages         100,00%         58,17%         41,83%           Office Supplies         7,782         4,527         3,255           Rent         1,977         1,150         827           Transportation         7,906         4,599         3,307           Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         54141,525		9,050		9,050	
Less Commodity	Subtotal		69,239		56,111
Total         \$134,146         \$78,035         \$56,111           Allocation Percentages         100,00%         58.17%         41.83%           Office Supplies         7,782         4,527         3,255           Rent         1,977         1,150         827           Transportation         7,906         4,599         3,307           Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         -14,688         -9,586         -5,102           Non-Utility Operating Income         -3,325 <t< td=""><td>Less Commodity</td><td></td><td>·</td><td>·</td><td>·</td></t<>	Less Commodity		·	·	·
Allocation Percentages         100.00%         58.17%         41.83%           Office Supplies         7,782         4,527         3,255           Rent         1,977         1,150         827           Transportation         7,906         4,599         3,307           Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         -141,525         \$75,334           Allocation Percentages         100.00%         65,26%         34,74%           Misc Non-Operating Income         -3,325         -2,170 <td></td> <td></td> <td></td> <td>\$78,035</td> <td>\$56,111</td>				\$78,035	\$56,111
Office Supplies         7,782         4,527         3,255           Rent         1,977         1,150         827           Transportation         7,906         4,599         3,307           Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         Total         \$216,859         \$141,525         \$75,334           Allocation Percentages         100.00%         65,26%         34,74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Incom	Allocation Percentages				41.83%
Rent         1,977         1,150         827           Transportation         7,906         4,599         3,307           Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         -69,239         -70         -7		7,782		4,527	3,255
Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         -75,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,335         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -71,388		1,977		1,150	827
Regulatory Commission         1,299         756         543           Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         -75,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,334         -77,335         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -77,336         -71,388	Transportation	7,906		4,599	3,307
Routine System Maintenance         14,400         8,377         6,023           Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         \$141,525         \$75,334           Allocation Percentages         100.00%         65,26%         34,74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations					543
Property Taxes         3,703         2,154         1,549           Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         \$141,525         \$75,334           Allocation Percentages         100.00%         65.26%         34.74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320 <t< td=""><td></td><td></td><td></td><td>8,377</td><td>6,023</td></t<>				8,377	6,023
Miscellaneous General Expense         94         55         39           Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         -69,239         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,233         -70,230         -70,233 <td></td> <td>3,703</td> <td></td> <td>2,154</td> <td>1,549</td>		3,703		2,154	1,549
Miscellaneous Supplies Expense         1,872         1,089         783           Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         \$141,525         \$75,334           Allocation Percentages         100.00%         65.26%         34.74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559 <t< td=""><td></td><td>94</td><td></td><td>55</td><td>39</td></t<>		94		55	39
Subtotal         \$242,418         \$69,239         \$100,741         \$72,438           Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         \$141,525         \$75,334           Allocation Percentages         100.00%         65.26%         34.74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988		1,872		1,089	783
Depreciation         41,034         38,314         2,720           Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         *141,525         \$75,334           Allocation Percentages         100.00%         65.26%         34.74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest Expense Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988			\$69,239		
Amortization         2,646         2,471         175           Total Operating Expenses         \$286,098         \$69,239         \$141,525         \$75,334           Less Commodity         -69,239         -69,239         -69,239         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,334         -72,470         -72,334         -72,334         -72,376         -72,376         -72,376         -72,376         -72,376         -72,376         -72,376         -72,376         -72,378         -72,376         -72,378         -72,376         -72,378         -72,376         -72,378         -72,376         -72,378	Depreciation	41,034			2,720
Less Commodity         -69,239           Total         \$216,859         \$141,525         \$75,334           Allocation Percentages         100.00%         65.26%         34.74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988	Amortization	2,646			175
Total         \$216,859         \$141,525         \$75,334           Allocation Percentages         100.00%         65.26%         34.74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988	Total Operating Expenses	\$286,098	\$69,239	\$141,525	\$75,334
Total         \$216,859         \$141,525         \$75,334           Allocation Percentages         100.00%         65.26%         34.74%           Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988	Less Commodity	-69,239			
Allocation Percentages       100.00%       65.26%       34.74%         Misc Non-Operating Income       -3,325       -2,170       -1,155         Interest & Dividend Income       -14,688       -9,586       -5,102         Non-Utility Operations       192       125       67         Interest Expense       7,393       4,825       2,568         Margin Before Income Taxes       47,810       31,202       16,608         Revenue Required from Operations       323,480       69,239       165,921       88,320         Allocation Percentages       100.00%       21.40%       51.29%       27.30%         Less Forfeited Discounts       -7,283       -1,559       -3,736       -1,988				\$141,525	\$75,334
Misc Non-Operating Income         -3,325         -2,170         -1,155           Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988	Allocation Percentages				34.74%
Interest & Dividend Income         -14,688         -9,586         -5,102           Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988		-3,325		-2,170	-1,155
Non-Utility Operations         192         125         67           Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988					-5,102
Interest Expense         7,393         4,825         2,568           Margin Before Income Taxes         47,810         31,202         16,608           Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988					67
Margin Before Income Taxes       47,810       31,202       16,608         Revenue Required from Operations       323,480       69,239       165,921       88,320         Allocation Percentages       100.00%       21.40%       51.29%       27.30%         Less Forfeited Discounts       -7,283       -1,559       -3,736       -1,988		7,393		4,825	2,568
Revenue Required from Operations         323,480         69,239         165,921         88,320           Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988					
Allocation Percentages         100.00%         21.40%         51.29%         27.30%           Less Forfeited Discounts         -7,283         -1,559         -3,736         -1,988			69,239		
Less Forfeited Discounts -7,283 -1,559 -3,736 -1,988					27.30%
					-1,988
		\$316,197	67,680	162,186	86,331

# ATTACHMENT D-3 STAFF REPORT CASE NO. 98-377 COST OF SERVICE STUDY CALCULATION OF RATES

	Total	First 2.000	Novt 12 000	Nov4 45 000	Novt 20 000	Over 50,000
Dunington Only	Total	First 2,000			Next 20,000	
Projected Gallons Sold	97,201,400	27,065,900	65,920,900			
Percentage	100.00%	27.85%	67.82%	2.08%	1.05%	1.21%
Alloc. of Volumetric Costs						
Commodity Costs	67,680	18,846	45,900	1,407	710	817
Demand Costs	162,186	45,161	109,993	3,372	1,702	1,958
Sub-Total	229,866	64,007	155,892	4,780	2,412	2,775
Customer Costs	86,331	0 1,001	.00,002	.,. 00		
Rev. Required from Rates	316,197					
Customer Costs	86,331					
Number of Bills	13,910					
Unadjusted Cust. Charge	\$6.21					
Onadjusted Odst. Onarge	ψ0.21					
	Customer	First	Next	Next	Next	Over
	Charge	2,000	13,000	15,000	20,000	50,000
	\$6.25	\$2.36	\$2.36	\$2.36	\$2.36	\$2.36
Monthly Charges:						
Customer Charge		per bill				
All Usage	\$2.36	per 1,000 gall	ons			
	Gallons	Current	PSC Staff	Dollar	Percent	
Sample Bills	Used	Rates	Proposal	Difference	Difference	
With Monthly Usage of	2,000	\$9.25	\$10.97	\$1.72	18.59%	
With Monthly Usage of	7,000	\$19.25	\$22.77	\$3.52	18.29%	
With Monthly Usage of	15,000	\$35.25	\$41.65	\$6.40	18.16%	
·	35,000	\$67.25	\$88.85	\$21.60	32.12%	
With Monthly Usage of						

# ATTACHMENT D-4 STAFF REPORT CASE NO. 98-377 COST OF SERVICE STUDY VERIFICATION OF RATES

		Bills	Gallons	Rate	Revenue	
Customer Charge		13,910	0	6.25	86,938	
First	2,000		27,065,900	2.36	63,876	
Next	13,000		65,920,900	2.36	155,573	
Next	15,000		2,021,170	2.36	4,770	
Next	20,000		1,020,030	2.36	2,407	
Over	50,000		1,173,400	2.36	2,769	
			97,201,400		316,333	
Revenue Required from Rates					\$ 316,197	
Projected Re	evenues per C	ost of Service	Study		\$ 316,333	
Percentage Difference				0.042949%		

	QTAI		CHMENT E RT CASE N	377	
			MMENDE		
Monthly Cu	stomer Charge	<u> </u>		\$ 6 25	Minimum Bill
Usage Char		•			Per 1,000 Gallons